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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,478	02/07/2001	Carlo Amalfitano	2479.2002-001	4704
21005	7590	06/01/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			NGUYEN, ALAN V	
			ART UNIT	PAPER NUMBER
			2662	7

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,478

Applicant(s)

AMALFITANO, CARLO

Examiner

Alan Nguyen

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5 and 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings were received on 21 May 2001.

The drawings are objected to because of minor informalities.

In **figure 1** it seems that elements 120-A, 120-B, and 120-Z should be labeled -- SAU --.

In **figure 2** element 425, "useage" should be replaced with --usage --.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Hou et al (US 6,324,184) hereafter Hou.

Regarding **claim 3** Hou discloses a method of providing multiple grade ("weighting factor"; see col 11 lines 10-31) of service in a demand access

communication system, in which the grade of service depends on historical use of available resources and continuity of resource allocation (**The MAC management entity may maintain a historical record of bandwidth usage for each user. Then, users who have relatively low usage levels may be given higher priority when requesting a bandwidth level that might otherwise be limited; for example see col 11 lines 50-60).**

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hou in view of Honkasalo et al (US 6,101,176) hereafter Honkasalo.

Regarding **claim 1** Hou discloses a method of providing multiple grades of wireless service to multiple field users for communication of data between a base station and multiple subscriber units (**figure 5**) over one or more CDMA communication channels, each grade of service having a corresponding priority level ("**weighting factor**"; see col 11 lines 10-31);

Hou discloses reserving a bandwidth and dividing the bandwidth into a plurality of channels (**central controller 210 allocates bandwidth on the transmission path 220 to manage communications between the subscriber units and the central**

controller. Path 220 may comprise one or more channels shared among the subscriber units; for example see col 3 lines 62-67);

Hou discloses maintaining a connection between multiple subscriber units and the base station **(See figure 5; The system maintains a minimum bandwidth for each subscriber unit; and maintains a count of the number of active users on each channel; for example see col 8 lines 7-14 and col 9 lines 1-7);**

Hou discloses detecting a request by multiple field units to simultaneously transmit data to the base station **(The MAC provides for collision detection and contention access, where users are requesting access to the same slot at the same time; see col 6 lines 32-67 and col 7 lines 1-5);**

Hou discloses assigning the subchannels for communication between the base station and subscriber units based on corresponding priority level of requesting field units, the priority level depending upon historical demand by a user making a specific request **(The MAC management entity may maintain a historical record of bandwidth usage for each user. Then, users who have relatively low usage levels may be given higher priority when requesting a bandwidth level that might otherwise be limited; for example see col 11 lines 50-60).**

Hou discloses the capability for a wireless network adaptation **(col 3 lines 55-57)**, but fails to expressly disclose where the communication is a CDMA communication and that the central controller is a base station and the subscriber units are units that are able to communicate wirelessly over CDMA channels.

Honkasalo discloses a CDMA based cellular network that provides a wireless connection to the subscribers for voice and data (**figure 7 shows a base station 316 with multiple mobile subscribers in the building 300; for example see col 6 lines 59-67 and col 26 lines 1-7**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hou's apparatus to utilize a CDMA cellular system with the base station as a central controller communicating to the subscribers through a wireless medium, as taught by Honkasalo. The motivation is that CDMA provides a wireless system that provides a relatively greater bandwidth capacity than other wireless systems. This fits the needs of increased applications for wireless data transmission, such as facsimiles and Internet access, and video transmission, as explained by Honkasalo on column 1, lines 20-30 and column 2, lines 10-25.

Regarding **claim 2** Hou discloses reducing a priority level of a field unit for exceeding a predetermined threshold of allowed usage (**The MAC management entity may maintain a historical record of bandwidth usage for each user. Then, users who have relatively low usage levels may be given higher priority when requesting a bandwidth level that might otherwise be limited; for example see col 11 lines 50-60**).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to show the state of the art with respect to grade of service and bandwidth allocation in wireless systems:

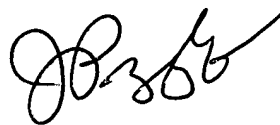
US Patent (6,560,460) to Horneman et al

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Nguyen whose telephone number is 703-305-0369. The examiner can normally be reached on 9am-6pm ET, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AVN
May 25, 2004


JOHN PEZZLO
PRIMARY EXAMINER